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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/506,458	09/01/2004	Ho Sung Kim	P/3653-10	9993

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
595 MINER ROAD
CLEVELAND, OH 44143

EXAMINER

ZEMEL, IRINA SOPJIA

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 02/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/506,458

Applicant(s)

KIM, HO SUNG

Examiner

Irina S. Zemel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The rejection not addressed below are deemed withdrawn.

Claim Rejections - 35 USC § 102/203

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-9 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over AU Patent Application 200151857 to De Toffol (hereinafter AU De Toffol) or under 35 U.S.C. 102(a and e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over its US corresponding patent 6,476,087 to De Toffol (hereinafter US De Toffol).

The rejection stands as per reasons of record.

Response to Arguments

Applicant's arguments filed 11-30-2005 have been fully considered but they are not persuasive. The applicants argue that the cited reference discloses a process where the microspheres are evenly distributed in the liquid phase binder and, therefore, do not float to the top of the mixture and do not achieve packing achieved by the present invention and discussed on pages 4 and 5 of the specification. The examiner disagrees with the applicants statement that the microspheres do not float to the top.

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While the reference does not expressly address this behavior of the microspheres during the foam formation, the microspheres, as discussed in the previous office action, the slow process of soaking the liquid phase inherently results in microspheres (at least a portion of microspheres) to float to the top of the mixture due to its buoyant nature. The claims of the instant application do not specify any desired degree or amount of microspheres floating on top of the mixture and this claim limitation is met by any relatively small amount of microspheres floated to the top of the mixture. The burden was shifted to the applicants to provide evidence that no microspheres of the compositions disclosed in De Toffol are floating to the top of the mixture upon slow draining or soaking of the solvent. The applicants provided none other than mere statement that since the microspheres are evenly dispersed in the liquid phase binder they do not float to the top. It is quite possible that the microspheres, originally and prior to being poured into the mold, are uniformly dispersed in the liquid binder (so, by the way, are the microspheres of the present invention). However, as discussed in the previous office action, upon sitting in the mold during slow process of solvent removal, at least some of the microspheres must float to the top due to their buoyant nature. Furthermore, by draining all of the excess of liquid phase, it is reasonable believed that the microspheres become inherently closed packed and reach the bottom of the mold.

The applicants further argue that De Toffol has a different aim and uses a different method in manufacturing the foams. The applicants state that as per claim 30, the process of De Toffol achieves foams "wherein the total interstitial void space

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is greater than the total microsphere void space", which is different from the objective of the present invention as shown in figures 1C and 1D of the instant application. First of all, In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., interstitial void space or any measure of the voids between the microspheres) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Furthermore, the claimed interstitial void space of the De Toffol reference only represent one of the preferred embodiments. The reference further expressly discusses in column 3, starting at line 37, "As indicated above, the porosity of the syntactic foam is a combination of the void volume of the microspheres and the interstitial void volume between the microspheres. An advantage of the preferred form of the invention is that the method allows for high interstitial void volume to be produced because adequate coating of the microspheres can occur using low amounts of polymer. The method also does not induce forces in the mix that results in increased packing of the microspheres. As such, it is possible using the method of the invention to lower the density of the syntactic foam by creating a high interstitial void volume. The applicant has found that the density of the syntactic foam produced by the method of the present invention is lowest when the interstitial void volume is greater than the total void volume of the microspheres. Thus, the greater proportion of porosity in the low density syntactic foam of the present invention". Thus the reference

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provides expressed teaching and motivation to either increase or decrease the interstitial void volume depending on the desired characteristics of the final foams.

The applicants argue that with respect to the draining step, the reference discloses use of porous wick to absorb the excess liquid phase binder, rather than draining the excess binder as described and claimed. In interpreting the claimed limitation "draining" the examiner turned to a dictionary. The Cambridge dictionary definition of the word "drain" is – "to cause (a liquid) to flow away or cause a liquid to flow away from (something), leaving it dryer, or to become dryer as a liquid flows away". Removal of liquid from the composition by soaking liquid away is fully consistent with the above definition. Therefore, it is not seen how the claimed limitation of draining distinguishes over the cited art step of removal of liquid from the composition. Mere statement by the applicants that "soaking is not draining", thus, appears to be not only unconvincing, it also appears to be contrary to the common definition of the term "drain".

The invention as claimed, thus, is still considered to be unpatentable over the disclosure of the cited references.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

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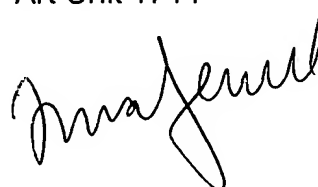
shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irina S. Zemel whose telephone number is (571)272-0577. The examiner can normally be reached on Monday-Friday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571)272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Irina S. Zemel
Examiner
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ISZ